REPORT OF THE COMMITTEE ON THE DEVELOPMENT AND UTILIZATION OF NEW AND RENEWABLE SOURCES OF ENERGY

GENERAL ASSEMBLY

OFFICIAL RECORDS: FORTY-SEVENTH SESSION

SUPPLEMENT No. 36 (A/47/36)

UNITED NATIONS

REPORT OF THE COMMITTEE ON THE DEVELOPMENT AND UTILIZATION OF NEW AND RENEWABLE SOURCES OF ENERGY

GENERAL ASSEMBLY

OFFICIAL RECORDS: FORTY-SEVENTH SESSION

SUPPLEMENT No. 36 (A/47/36)

UNITED NATIONS

New York, 1992

NOTE

Symbols of United Nations documents are composed of capital letters combined with figures. Mention of such a symbol indicates a reference to a United Nations document.

ISSN 0255-1330

[Original: English]

[10 March 1992]

CONTENTS

		Paragraphs	Page
I.	INTRODUCTION	1 - 3	1
II.	ORGANIZATIONAL MATTERS	4 - 14	2
	A. Opening and duration of the session	4 - 5	2
	B. Attendance	6 - 10	2
	C. Election of officers	11	3
	D. Adoption of the agenda and organization of work	12 - 13	3
	E. Documentation	14	4
III.	OPENING AND INTRODUCTORY STATEMENTS	15 - 40	6
IV.	IMPLEMENTATION OF THE NAIROBI PROGRAMME OF ACTION FOR THE DEVELOPMENT AND UTILIZATION OF NEW AND RENEWABLE SOURCES OF ENERGY	41 - 60	12
V.	PROMOTION OF THE MOBILIZATION OF FINANCIAL RESOURCES REQUIRED IN THE IMPLEMENTATION OF THE NAIROBI PROGRAMME OF ACTION	61 - 63	17
VI.	SUBSTANTIVE THEMES SELECTED FOR DETAILED CONSIDERATION	64 - 67	18
VII.	COMMEMORATION OF THE TENTH ANNIVERSARY OF THE ADOPTION OF THE NAIROBI PROGRAMME OF ACTION FOR THE DEVELOPMENT AND UTILIZATION OF NEW AND RENEWABLE SOURCES OF ENERGY	68 - 73	20
VIII.	MEDIUM-TERM PLANNING IN THE FIELD OF DEVELOPMENT AND UTILIZATION OF NEW AND RENEWABLE SOURCES OF ENERGY	74 - 75	22
IX.	PROPOSALS CONSIDERED BY THE COMMITTEE	76 - 81	23
X.	CONSIDERATION OF THE DRAFT PROVISIONAL AGENDA AND DOCUMENTATION FOR THE SEVENTH SESSION OF THE COMMITTEE	82	31
XI.	ADOPTION OF THE REPORT OF THE COMMITTEE ON ITS SIXTH SESSION	83	32
Annex.	Decisions adopted by the Committee on the Development and Utilization of New and Renewable Sources of Energy at its sixth session		33

I. INTRODUCTION

1. The General Assembly, in paragraphs 1 and 2 of section II of its resolution 37/250 of 21 December 1982, decided to establish an intergovernmental Committee on the Development and Utilization of New and Renewable Sources of Energy, which would be open to the participation of all States as full members, and endorsed the recommendation that representation of Member States in the Committee should be at a high level.

2. In paragraph 3 of section II of the resolution, the General Assembly decided that the Committee would meet once every two years in even years, but that, exceptionally, it would hold its first regular session in the second quarter of 1983.

3. In paragraph 4 of section II of the resolution, the General Assembly decided also that the Committee would submit its report and recommendations to the Assembly, through the Economic and Social Council, which may transmit to the Assembly such comments on the reports as it may deem necessary.

II. ORGANIZATIONAL MATTERS

A. Opening and duration of the session

4. The sixth session of the Committee on the Development and Utilization of New and Renewable Sources of Energy was held at United Nations Headquarters from 3 to 14 February 1992. The Committee held eight meetings (1st to 8th).

5. The session was opened by the Director-General for Development and International Economic Cooperation.

B. Attendance

6. Representatives of the following States attended the session: Algeria, Antigua and Barbuda, Austria, Belgium, Benin, Brazil, Bulgaria, Burkina Faso, China, Colombia, Cuba, Denmark, Djibouti, Ecuador, Egypt, Estonia, France, Germany, Grenada, Guatemala, Guinea, Guyana, Haiti, Holy See, Honduras, Hungary, India, Indonesia, Iran (Islamic Republic of), Iraq, Ireland, Italy, Jamaica, Japan, Kenya, Lebanon, Libyan Arab Jamahiriya, Madagascar, Malawi, Malaysia, Mali, Marshall Islands, Mauritania, Mexico, Mongolia, Morocco, Namibia, Netherlands, New Zealand, Norway, Oman, Pakistan, Philippines, Poland, Portugal, Republic of Korea, Romania, Russian Federation, Saudi Arabia, Spain, Sri Lanka, Sudan, Swaziland, Sweden, Thailand, Tunisia, Turkey, Uganda, Ukraine, United Arab Emirates, United Kingdom of Great Britain and Northern Ireland, United Republic of Tanzania, United States of America, Uruguay, Venezuela, Zambia and Zimbabwe.

7. The following United Nations organs and bodies were represented:

Centre for Science and Technology for Development

Department of Technical Cooperation for Development

United Nations Development Programme

United Nations Environment Programme

United Nations University

Economic and Social Commission for Western Asia

United Nations Centre for Human Settlements (Habitat)

International Research and Training Institute for the Advancement of Women

8. The Food and Agriculture Organization of the United Nations, the United Nations Educational, Scientific and Cultural Organization, the World Health Organization, the World Meteorological Organization and the United Nations Industrial Development Organization were represented.

9. The following intergovernmental organizations were represented by observers:

Organization of African Unity

Commission of the European Communities

10. The International Chamber of Commerce, a non-governmental organization in consultative status, category I, with the Economic and Social Council, was represented by an observer.

C. Election of officers

11. At its 1st, 2nd and 6th meetings, on 3, 4 and 7 February, the Committee elected by acclamation the following officers:

Chairman: Mr. Eduardo Praselj (Venezuela)

Vice-Chairman: Mr. Paul-Georg Gutermuth (Germany)

Rapporteur: Mr. Anatoliy G. Koupriyan (Ukraine)

D. Adoption of the agenda and organization of work

12. At its 1st meeting, on 3 February, the Committee adopted the following agenda, as contained in document A/AC.218/1992/1 and Corr.1:

1. Election of officers.

2. Adoption of the agenda and organization of work.

3. Implementation of the Nairobi Programme of Action for the Development and Utilization of New and Renewable Sources of Energy:

   (a) Monitoring the implementation of the Nairobi Programme of Action and the activities of the organs, organizations and bodies of the United Nations system in the field of new and renewable sources of energy;

   (b) Recommendation of policy guidelines for different organs, organizations and bodies within the United Nations system with regard to new and renewable sources of energy on the basis of the Nairobi Programme of Action;

   (c) Formulation and recommendations of action-oriented plans and programmes for carrying out the Nairobi Programme of Action in accordance with the priorities identified therein;

   (d) Inter-agency coordination for the implementation of the Nairobi Programme of Action;

(e) Contribution to the United Nations Conference on Environment and Development.

4. Promotion of the mobilization of financial resources required in the implementation of the Nairobi Programme of Action:

(a) Existing channels for funding new and renewable sources of energy;

(b) Progress achieved in mobilizing financial resources through consultative meetings.

5. Substantive themes selected for detailed consideration:

(a) Contribution of new and renewable sources of energy to decentralized energy systems and to specific multi-purpose medium- to large-scale applications;

(b) Promotion of rapid and effective transfer of technology in the field of new and renewable sources of energy to developing countries, including the role of joint ventures in the framework of North-South and South-South cooperation, in fulfilment of the goals and objectives of the Nairobi Programme of Action, with a view to taking due account of the potential contribution of those sources to sustainable and environmentally sound development in all countries.

6. Commemoration of the tenth anniversary of the adoption of the Nairobi Programme of Action for the Development and Utilization of New and Renewable Sources of Energy.

7. Medium-term planning in the field of development and utilization of new and renewable sources of energy.

8. Provisional agenda for the seventh session of the Committee.

9. Adoption of the report of the Committee on its sixth session.

13. At the 2nd meeting, on 4 February, after having heard a statement by a representative of the Programme Planning and Budget Division, the Committee adopted its organization of work, as contained in document A/AC.218/1992/L.2, with the proviso that every effort would be made to conclude the work of the Committee as early as possible.

E. Documentation

14. The Committee had before it the following documents:

(a) Provisional agenda (A/AC.218/1992/1 and Corr.1);

(b) Report of the Secretary-General on the contribution of new and renewable sources of energy to decentralized energy systems and to specific multi-purpose medium- to large-scale applications (A/AC.218/1992/2);

(c) Report of the Secretary-General on the promotion of rapid and effective transfer of technology in new and renewable sources of energy to developing countries (A/AC.218/1992/3);

(d) Report of the Secretary-General on the activities of the United Nations system in the contribution of new and renewable sources of energy to decentralized energy systems and to transfer of technology (A/AC.218/1992/4);

(e) Report of the Secretary-General entitled "Solar energy: a strategy in support of environment and development" (A/AC.218/1992/5 and Add.1);

(f) Report of the Secretary-General on the activities being carried out by the entities within the United Nations system in the field of new and renewable sources of energy (A/AC.218/1992/6);

(g) Report of the Secretary-General on the mobilization of financial resources and inter-agency coordination (A/AC.218/1992/7);

(h) Report of the Secretary-General on progress achieved in the follow-up of substantive themes selected for detailed consideration by the Committee at its fourth and fifth sessions (A/AC.218/1992/8);

(i) Report of the Intergovernmental Group of Experts on New and Renewable Sources of Energy (A/AC.218/1992/9);

(j) Letter dated 7 February from the Permanent Representative of Norway transmitting the report of a symposium on hydropower - utilization of waterfall energy in an environmentally sensitive world (A/AC.218/1992/10);

(k) Note by the Secretariat on the status of documentation for the session (A/AC.218/1992/L.1);

(l) Draft organization of work (A/AC.218/1992/L.2);

(m) Draft report of the Committee on its sixth session (A/AC.218/1992/L.3 and Add.1 and 2);

(n) Draft resolution submitted by Pakistan, on behalf of the States Members of the United Nations that are members of the Group of 77, entitled, "Development and utilization of new and renewable sources of energy in the 1990s and beyond" (A/AC.218/1992/L.4);

(o) Draft provisional agenda for the seventh session of the Committee (A/AC.218/1992/L.5).

III. OPENING AND INTRODUCTORY STATEMENTS

15. The Director-General for Development and International Economic Cooperation opened the sixth session of the Committee on the Development and Utilization of New and Renewable Sources of Energy. In his statement, he said that the sixth session of the Committee was taking place on the tenth anniversary of the adoption of the Nairobi Programme of Action for the Development and Utilization of New and Renewable Sources of Energy. 1/ As requested by the Committee at its fifth session, the Intergovernmental Group of Experts on New and Renewable Sources of Energy, which met at United Nations Headquarters from 26 to 30 August 1991, under the Chairmanship of Eduardo Praselj of Venezuela, had submitted to the Committee a comprehensive report (A/AC.218/1992/9). In that report, the Group of Experts had made a comprehensive evaluation of progress achieved during the 1980s and, more important, had provided a set of recommendations for action at the national and international levels in order to accelerate the implementation of the Nairobi Programme of Action.

16. Much had changed in the world energy situation since the adoption of the Nairobi Programme of Action. Programmes and policies, initiated during the first half of the 1980s, aimed at energy conservation and efficiency and the promotion of new and renewable sources of energy, had been scaled down after the 1986 collapse in oil prices and their subsequent stabilization at lower levels. The rate of growth of world energy demand had since then accelerated, particularly in the developing countries. At the same time, global environmental concerns had intensified, especially with regard to the contribution of carbon dioxide, through the use of fossil fuels and deforestation, to the greenhouse effect. In many developing countries, deforestation and denuding of the countryside resulting from increased use of fuelwood had created a crisis of major magnitude and intensity with far-reaching social, economic and environmental consequences. A solution to the rural energy problem deserved high priority.

17. Despite set-backs, there had been a discernible increase in the application and use of technologies to harness new and renewable sources of energy in many developing countries. However, their world-wide contribution had remained stable at about 14 per cent of world energy supplies. That contribution was, however, much higher in many developing countries and had reached 60 to 70 per cent in many regions.

18. The Director-General drew the attention of the Committee to the recommendations of the United Nations Solar Energy Group on Environment and Development, under the Chairmanship of Thomas B. Johansson of Sweden. The Group had prepared a report entitled "Solar energy: a strategy in support of environment and development" (see A/AC.218/1992/5 and Add.1), which was before the Committee. Among other recommendations, the Group called for the establishment of an international solar energy agency.

19. Steps should be taken to strengthen national institutions for new and renewable sources of energy and linkages among them should be established, as recommended by the Castel Gandolfo Colloquium, for the organization of an international network of centres of excellence. An important aspect of international cooperation in the development of new and renewable sources of

energy related to the transfer of technology. Although relevant activities had been continuing in that area over the years through bilateral as well as multilateral cooperation, much remained to be done.

20. In closing, the Director-General informed the Committee that the General Assembly was considering the establishment of a new expert committee named "Committee on New and Renewable Sources of Energy and on Energy for Development". Governments were of the opinion that the work of the United Nations in that critical area would thereby be strengthened. He suggested that the current session of the Committee focus on the report of the United Nations Solar Energy Group on Environment and Development (see A/AC.218/1992/5 and Add.1) and the report of the Intergovernmental Group of Experts on New and Renewable Sources of Energy (A/AC.218/1992/9). Under the proposed change, which had yet to be approved by the General Assembly, the new expert committee would meet for two weeks every two years.

21. The Special Coordinator for New and Renewable Sources of Energy said that the issue of energy should be considered in the long-term perspective. To continue to link the development of new and renewable sources of energy to the fluctuations of the oil market was not very convincing and unfair to the 2.7 billion human beings who had only limited access to commercial sources of energy. He stated that currently, unlike in 1981, when the Nairobi Programme of Action had been adopted, public opinion attached great importance to the protection of the environment and to the threats to the planet. Current energy consumption constituted an extremely heavy burden on the environment. Nuclear energy could not replace other forms of energy as long as its use continued to give rise everywhere to mistrust and even rejection. In the light of that situation, the question to be asked was how to protect the environment without giving up economic development, which required abundant and reasonably priced sources of energy.

22. Sources of energy supply had to be diversified. Initially, that would call for decreased use of conventional sources of energy in global energy consumption in order to reduce gas emissions, soil deterioration, air and water pollution, acid rain and emissions of toxic substances. He said it was time to assess the environmental costs of the principal sources of energy in order to find better ways of preventing the continued degradation of the environment by promoting the use of cleaner energies. One source of energy that should be considered a viable alternative was solar energy. There had been repeated calls for the establishment of an international body to promote solar energy. There were active organizations at the national level. The idea of establishing an international body to coordinate action to promote solar energy deserved serious consideration.

23. The representative of the United Nations International Research and Training Institute for the Advancement of Women (INSTRAW), stressed that inadequate energy sources affected women in developing countries most severely and that women's involvement in collecting and disseminating those sources was not taken into account by policy makers. Women lacked education and training, as well as information, which prevented them from full participation in energy-related activities. A well-defined policy that involved women in the energy sector was a prerequisite for environmentally sound energy policies. The Institute focused on research and training at the national and regional levels to ensure women's involvement in renewable energy programmes.

Multi-media training packages for development officials and women's organizations were central to that effort. In developing countries, as women were primary providers of household energy, they influenced the patterns and amount of energy consumed. In both cases, however, they suffered the consequences of declining sources and rising prices. The Committee should recommend that education and training on women and environmental issues be strengthened.

24. The representative of the Department of Technical Cooperation for Development said that, in the past, the Department had undertaken numerous projects in the areas of solar, wind, biomass, hydropower and geothermal energies, and had also contributed to such other areas of new and renewable energy development as the ocean, charcoal and draught-animal power energies. Taking into account financial implications, the Department played a major role in developing highly innovative projects in the field of photovoltaics through purely commercial channels.

25. The Department was also active in rural energy projects, which often involved demonstrations to determine which of the technologies were more appropriate and could be better applied to local needs. There was a need for establishing the appropriate local institutions and for drafting legislation to better meet the growing environmental crisis.

26. The representative of the Economic and Social Commission for Western Asia said that the Commission had undertaken a number of activities to develop renewable energy sources in the region. Those sources were particularly important to remote areas. Biogas technology was being promoted and a pilot biogas project had been undertaken in the 1980s in southern Yemen to demonstrate the benefits of biogas systems. Overall living standards, including local health standards, had improved owing to the systematic collection of waste, and the burden on women to collect firewood had decreased. A regional training workshop had been convened in the Syrian Arab Republic to build biogas digesters to produce energy for cooking. The technology held much promise for the region. Efforts had also been directed at establishing a regional information network on renewable energy to promote discussion of new ideas and the dissemination of information in the field. Research on solar, wind and biomass energy sources had been undertaken, and rural energy needs were under study. An assessment and review of the implementation of the Nairobi Programme of Action in the region was being conducted and a number of new pilot projects were being prepared with national, regional and international organizations.

27. The representative of the Food and Agriculture Organization of the United Nations (FAO) said that his organization continued to assist developing countries in such major areas as technology development and the formulation of energy strategies and plans for rural energy development. It had recently provided assistance in the latter field to such countries as China, Indonesia, Nigeria, the Philippines, Sri Lanka and Viet Nam, as well as to 10 Latin American countries. It continued with an intense field programme in various energy technologies.

28. FAO placed special emphasis in its activities on projects that contributed to sustainable and environmentally sound development, and hence was involved in various new and renewable sources of energy projects.

Following the FAO/Netherlands Conference on Agriculture and the Environment, an international programme that included energy development in rural areas had been integrated into Agenda 21 of the United Nations Conference on Environment and Development. To address the growing concerns regarding the energy and environmental linkages, the role of the United Nations should be further consolidated. Inter-agency cooperation remained to be better developed and consolidated.

29. The representative of the United Nations Environment Programme (UNEP) said the Programme's first priority in the field of energy was to integrate consideration of environmental concerns, particularly greenhouse gas aspects, into energy policy world wide. UNEP had established a new centre in Denmark to promote environmentally conscious energy planning in developing countries. Its first collaborative policy study project was to develop an action plan for more environmentally sound energy programmes in India. Similar projects were under discussion with other Governments. An environmental database had been developed for UNEP and was being used in a number of developing countries. That database could determine the environmental impact of specific technologies and scenarios. The UNEP strategy for 1992 was to strengthen national and regional capabilities for dealing with the environmental issues related to energy production and consumption. A broad authoritative study on the environmental impact of renewable energy technologies was under consideration; little had been done to study the environmental impact. Although the impact of renewable energy technologies was less than that of conventional energy sources, it was an important area of study.

30. The representative of the World Meteorological Organization (WMO) pointed to the close relationship between environment and development, which had been recognized in 1981, when the Nairobi Programme of Action had been formulated. New concerns, such as air and water pollution, the greenhouse effect, acid precipitation and land degradation were growing and should be properly addressed. WMO had a responsibility to function as a "scientific voice" in promoting environmentally sound technologies. Assessment of new and renewable sources of energy should be very closely related to concerns for the environment. As energy issues were closely related to climate change and the impact of the development and utilization of energy sources on the environment was direct, they had been given priority consideration. Among detrimental consequences were air and water pollution and land degradation. The second World Climate Conference had considered assessments of the promotion of new and renewable sources of energy to reduce environmental impacts.

31. The representative of the United Nations University (UNU), said that the University had an active programme in the energy field, especially for rural communities.

32. Extensive research and development in both developed and developing countries had led to the emergence of successful practical technologies. Several years of experience had been accumulated for many technologies which should be considered for utilization in isolated areas where the cost of conventional energy sources was less competitive. Research and training institutes on new and renewable sources of energy were already operating in many countries.

33. The representative of the United Nations Centre for Human Settlements (Habitat) said that the Centre had long been concerned with household energy use. In a report to the second session of the Preparatory Committee for the United Nations Conference on Environment and Development, the Centre had recommended to developing countries that national action programmes promote agricultural-waste and biomass energy and reforestation; large-scale dissemination of mature renewable energy technologies through fiscal measures and technology-transfer mechanisms; building codes and regulations that encouraged the use of low-energy and locally produced materials; and training programmes directed at manufacturers and users to introduce energy-saving techniques and appliances.

34. Excessive use by developed countries of non-renewable resources and consequent contribution to "greenhouse gases" were a result of transport energy demand. Energy-conservation measures were urgently needed. Habitat recommended conservation measures such as district heating and cooling, improved insulation and increased use of renewable energy in households. In the transport sector, it recommended increasing charges on car use through road and petroleum taxes; stringent auto pollution transportation. Cooperation in the fields of conservation, energy pricing and taxation should also be developed. Habitat also recommended that international organizations assist in preparing resource-management programmes, provide assistance to developing countries to apply solar, hydropower, wind and biomass technologies and promote transfer of technology. The international community should also provide developing countries with access to research and development results to increase energy efficiency.

35. The representative of the United Nations Industrial Development Organization (UNIDO), recognized the close relationship between energy, industry and environment. The medium-term plan of UNIDO stressed the energy needs of industry, and many projects focused on technical activities and promotional assistance in the field of production, distribution, use and conservation of energy. UNIDO had promoted a consultative group on solar energy, established in 1986, recognizing that investment in solar energy research should not fluctuate with the price of oil. Solar energy could be of great benefit to developing countries. A centre to develop products related to solar energy use in developing countries had been established.

36. Hydrogen was a clean source of energy that was being developed by many industrialized countries. UNIDO had prepared a feasibility report on setting up a centre on "solar" hydrogen. Small-scale hydropower was also an important energy source, and UNIDO had worked to develop it in Latin America, Africa and Asia. The organization had established a small hydropower network in China, which would be upgraded into an international centre. UNIDO was concerned with developing equipment and products to produce, distribute and use renewable sources of energy since those sources did not easily lend themselves to popular use.

37. The representative of the United Nations Development Programme (UNDP) said that projects funded by the UNDP Energy Account had met with both success and failure. The reasons for the unsuccessful projects could be attributed to the following: (a) many projects were designed to promote certain renewable energy technologies; as the bulk of the population in the developing countries lived in rural areas, the needs that had to be met within the rural

development process should be identified to find out how some of them could be met through the utilization of new and renewable sources of energy; (b) at times technology had been introduced in the rural areas with very little involvement by the recipients, which had resulted in projects failing. Full involvement of the recipients since the inception of the project should be solicited.

38. The UNDP Energy Account had funded several demonstration projects in new and renewable sources of energy since the Nairobi Conference in 1981 but there had been very little follow-up, even in cases when projects had proved technically feasible and economically viable. Consequently, in order to promote follow-up of successful projects, UNDP suggested that the problems regarding barriers to commercialization/dissemination of proved technologies to harness new and renewable sources of energy be addressed and measures suggested to remove those barriers. As the lead agency for preparing such a document, UNDP had obtained the collaboration of the United States Department of Energy and the Government of France.

39. In addition, UNDP, together with the United States Department of Energy, the Government of the Netherlands and the World Bank, was participating in the financing of energy aimed at the commercialization of technologies to harness new and renewable sources of energy and the promotion of energy-efficiency measures. Within that programme, market studies and business plans for Indonesia, Malaysia, the Philippines and Thailand had been prepared and discussed and the World Bank had agreed to consider loans for projects under FINESSE as part of an energy sector loan to a particular country, initially in the Asia region.

40. The representative of the United Nations Centre for Science and Technology for Development, said that, at a meeting on photovoltaic energy held in Brazil in 1991, the prospects for mass-producing photovoltaic systems had been considered. Discussion centred on how photovoltaics could reach a stage at which they could supply energy to rural areas of developing countries at a commercial level. The meeting had produced a declaration on photovoltaics. It had recommended that 1 million photovoltaic systems be installed by 1995 to improve the lives of 1 per cent of the world's rural poor and that they be expanded to cover 10 per cent of the rural poor by the end of the century. An international working commission should be created to develop a goal-oriented plan to commercialize photovoltaic systems.. Although it appeared that few developing countries were able to integrate photovoltaic systems, some countries, such as China and India, had adopted relevant technologies. The key to implementing environmentally sound photovoltaic technologies was the production of solar cell systems.

IV. IMPLEMENTATION OF THE NAIROBI PROGRAMME OF ACTION FOR THE DEVELOPMENT AND UTILIZATION OF NEW AND RENEWABLE SOURCES OF ENERGY

(Agenda item 3)

41. The Chief of the New and Renewable Sources of Energy Section, Energy and Resources Branch, Department of International Economic and Social Affairs of the Secretariat, introduced the report of the Secretary-General on the activities being carried out by the entities within the United Nations system in the field of new and renewable sources of energy (A/AC.218/1992/6). He stated that the activities of the entities covered the broad policy areas outlined in the Nairobi Programme of Action for the Development and Utilization of New and Renewable Sources of Energy. Most of the activities had been categorized as supportive measures, while a lesser number related to technology transfer or resource transfer. Areas of concentration varied among the entities depending on the orientation of the organization in question and depending on the interest of the requesting Government. Substantial progress had been achieved in providing assistance to developing countries in assessing new and renewable sources of energy resources, evaluating the technical feasibility of various technologies, strengthening national institutions, developing human resources, improving information flows, and developing databases and rural energy supplies. The progress achieved had not met with expectations, however.

42. The Chief of the New and Renewable Sources of Energy Section also introduced the report of the Secretary-General on progress achieved in the follow-up of substantive themes selected for detailed consideration by the Committee at its fourth and fifth sessions (A/AC.218/1992/8). The themes considered at the fourth session were (a) research, development and demonstration and (b) information systems in the field of new and renewable sources of energy. At that session the Committee had also considered the report of the Castel Gandolfo Colloquium of High-level Experts on New and Renewable Sources of Energy. With regard to information systems, consultations had continued, but so far no government had offered to fund and act as host to an expert group meeting, as had been suggested by the Committee at its fifth session.

43. The representative of the United Nations University (UNU) also made a statement in connection with the follow-up of the recommendations of the Castel Gandolfo Colloquium. Steps had been taken to implement the decisions of the Committee regarding the follow-up of the Colloquium. A pre-feasibility study on centres of excellence had been prepared as part of the collaboration between the Office of the Director-General for International Economic Cooperation, the Department of International Economic and Social Affairs and the Italian Agency for New Technology, Energy and the Environment (ENEA), with the financial support of the Italian Government. Eight centres of excellence of international scope in the field of new and renewable sources of energy had been identified. However, their establishment as centres of excellence required the financial support of donor communities and international institutions. The contribution of the private sector in this context was also being examined.

44. At its fifth session, the Committee had considered the following themes: (a) contribution of new and renewable sources of energy to integrated rural development; (b) direct solar-to-electrical energy conversion; and (c) utilization of agricultural residues and urban wastes for energy production. In connection with the first theme, the Chief of the New and Renewable Sources of Energy Section informed the Committee that the full proceedings of the meeting of the United Nations Group of Experts on the Role of New and Renewable Sources of Energy in Integrated Rural Development, which had met in Stockholm in January 1990, had been published by ZED Books under the title Energy for Rural Development and would be distributed to all delegations. He also informed the Committee that, as had been recommended by the Committee during its fifth session, the full study on direct solar-to-energy conversion was being published by the United Nations under the title Direct Conversion of Solar Energy to Electricity and would be widely distributed.

45. Some delegations suggested that the Committee should discuss the terms of reference and define the framework of the proposed Committee on New and Renewable Sources of Energy and on Energy for Development that would, inter alia, assume the mandate of the current Committee. That would ensure continuity in programmes and activities for new and renewable sources of energy.

46. Other delegations felt that that Committee, whose relevance derived from its in-depth consideration of relevant issues, in keeping with the letter and the spirit of the Nairobi Programme of Action, should continue to carry out its mandate, which was to promote the utilization of new and renewable sources of energy for the development of all mankind.

47. A large number of delegations reaffirmed the importance of new and renewable sources of energy and stressed that the fundamental objective of the Nairobi Programme of Action was still valid. The basic premises of the Programme of Action underlined the need for an orderly transition from fossil fuels to increasing reliance on new and renewable sources of energy. The Programme of Action emphasized that the transition should take place in a manner that would meet the needs and options of individual countries and would be socially equitable, economically and technically viable and environmentally sustainable. Delegations noted that the waning interest of the international community in the follow-up to the Programme of Action and in the commitment of resources had, however, resulted in little progress in this area. They stressed that the renewed impetus for the development and utilization of new and renewable sources of energy - namely, the impetus provided by environmental concerns - should not divert the attention of the international community from the Nairobi Programme of Action's basic premises. Several delegations pointed out that, since the adoption of the Nairobi Programme of Action, progress had been made in developing technologies to harness new and renewable sources of energy, and many were actually being adopted and applied in a number of countries.

48. Many delegations stated that the activities of the United Nations system in the field of new and renewable sources of energy had concentrated on support measures and that, from the point of view of developing countries, not enough had been done in the area of technology transfer. Even though international organizations in particular could potentially play an important

role in facilitating the transfer of technology, promotion of technology transfer had been sporadic and the emphasis placed on new and renewable sources of energy in the United Nations system had not been strong enough. They noted that the United Nations could play an important role in helping developing countries meet their increasing demands for energy for development. They stressed that in order for world-wide development and utilization of new and renewable sources of energy to take place, technology transfer to developing countries would have to be on preferential and concessional terms, and proper financial flows would have to be realized.

49. Some delegations stated that the Committee had not lived up to the expectations of a decade ago. They expressed the hope that the proposed Committee would help the United Nations to address more effectively the issues relating to new and renewable sources of energy and overcome the obstacles the current Committee had faced in the past. They stated that the transition to a better energy mix, with a significant contribution of new and renewable sources of energy, would ease the effects of global warming while promoting economic growth.

50. Some delegations described the efforts being made in their countries to implement the Nairobi Programme of Action. Research, development and demonstration centres had been established. The importance of institution-building on national and regional levels was emphasized. Testing, standardizing definitions and exercising quality control were mentioned as important measures for encouraging market expansion. One delegation referred to a successful wind energy programme, to supply electricity that had both Government and private involvement. Local manufacturing of systems and training of operational personnel for the adaptation of new and renewable sources of energy technologies were also mentioned. Fiscal and other economic incentives were crucial for increasing the involvement of private industry in developing and utilizing these resources. One delegation said that the use of new and renewable sources of energy, especially in rural areas, had resulted in substantial conventional energy savings in his country. One delegation said that despite abundant conventional energy resources, new and renewable sources of energy had been identified as a solution to the energy needs of vast areas of his country and appropriate policies had been formulated and supporting institutions had been established. A number of delegations stated that North-South and South-South cooperation, as well as cooperation with multilateral and bilateral organizations, were important factors for the development and use of new and renewable sources of energy in their countries.

51. Some delegations underlined the unique role that new and renewable sources of energy could play in contributing to the solution of problems facing mankind, such as global warming and other forms of environmental degradation. These sources could also reduce pressure on finite conventional energy sources which have been relied upon for economic growth and development in the past.

52. The Special Coordinator introduced the report of the Secretary-General entitled "Solar energy: a strategy in support of environment and development" (A/AC.218/1992/5) and expressed gratitude for the generous support of a large number of member States in the organization of the United Nations Solar Energy Group for Environment and Development (UNSEGED). The Chairman of UNSEGED referred to the conclusions of the experts that the constraints on the

development of new and renewable sources of energy were not technical but organizational and institutional in nature. The lack of a structural mechanism for implementing the Nairobi Programme of Action had resulted in a lost decade since the adoption of the Programme in 1981. He suggested that, at the national level, Governments should correct market biases against new and renewable sources of energy and the difficulties that small power producers faced in accessing electricity grids on reasonable terms. He emphasized that, at the international level, new and renewable sources of energy had not been given priority by international institutions. UNSEGED had therefore recommended that a new international renewable energy agency be established with sufficient political and financial resources. That agency should be involved not only in promotional activities but also in establishing agricultural, transport, industry, housing and regional development policies. The creation of such an agency would be a strong signal that an increased role of new and renewable sources of energy was required to deal with the problems of environment, security and development.

53. Delegations commended UNSEGED for a stimulating and thought-provoking report. However, they regretted the late release of the documents in general and in particular the report on UNSEGED. Many delegations felt that they could not make extensive comments as there was not sufficient time to send the documents back to their capitals for full consideration.

54. Many delegations suggested that some of the recommendations contained in the document should be compiled, strongly endorsed and submitted to the Preparatory Committee for the United Nations Conference on Environment and Development. Such a move was considered important as it would not only give new and renewable sources of energy its rightful place in the debate on the environment but would also provide deserved impetus after the waning interest displayed by the international community in the last decade.

55. One delegation pointed out that the formulation contained in paragraph 104 of the report on links between nuclear proliferation and the use of nuclear energy was overstated and did not correspond to reality.

56. One delegation noted that the relevant section under Agenda 21 of the United Nations Conference on Environment and Development, dealing with new and renewable sources of energy issues, fell short of an action-oriented format such as the one contained in the UNSEGED report. Therefore, the recommendations of the Committee on the Development and Utilization of New and Renewable Sources of Energy, together with the UNSEGED report, could play an important role in the deliberations of the Preparatory Committee of the Conference. A few delegations stated, however, that they were not in a position to endorse the report or its recommendations, although they did not reject the recommendations in their entirety, and stated that they would give them further study.

57. Some delegations said that the recommendation to set up an international renewable energy agency needed more time for analysis and consideration. Adequate funding for such an agency had also to be investigated and secured. One delegation suggested that the recommendation should be left for consideration by the new expert committee. He added that the outcome of the Conference in June 1992 would greatly influence the creation of such an agency. A few delegations said that it would be the responsibility of the

Conference to recommend such an agency. Subsequently, they would request the new committee to play an important role in formulating the framework and mandate for the agency. A few delegations supported the recommendations concerning the lack of comprehensive institutional structures within the United Nations system's institutional structure in the energy field. They felt that such strengthening could evolve from the suggestion contained in the report of the Intergovernmental Group of Experts on New and Renewable Sources of Energy (A/AC.218/1992/9) and from any future recommendations of the Conference.

58. Many delegations concurred with the conclusion that the decade following the Nairobi Conference had essentially been lost because of the lack of political commitments and the absence of agreed upon targets quantifying objectives in the Nairobi Programme of Action. Progress had, however, been achieved in many countries in implementing the Nairobi Programme of Action where concerted cooperative efforts at the national and international levels had been realized. The recommendations stressing increased international funding for support to the implementation of national action programmes were viewed as especially important. To ensure an environmentally secured present and future, the transfer of technologies on a preferential and concessional basis was considered particularly important. Many delegations also stressed the importance of not only providing additional funding for the transfer of those technologies as rapidly as possible but also for their implementation.

59. One delegation suggested that the Committee stress the complimentarity between energy efficiency and the development of new and renewable sources of energy when transmitting its comments to the Preparatory Committee for the Conference. A few delegations underscored the recommendations in the report dealing with the removal of subsidies and other biases for some energy sources so as to improve the competitive conditions for new and renewable sources of energy. They emphasized that other market development efforts should also be encouraged.

60. One delegation stated that one renewable resource that was already making a significant contribution to commercial energy supplies was hydropower. The delegation stressed that hydropower should be treated on equal terms with other renewable sources of energy and should be evaluated on the basis of the important role it played at present and the huge potential it had for the future, especially in developing countries. No distinction should be made between large- and small-scale hydropower as that was not the practice with other sources such as solar energy and wind. Full account should be taken of the longevity of hydropower plants. They could serve communities over many decades at very low operative costs once the capital invested had been amortized. Hydropower represented a very large potential for development of sustainable energy supply. Development of hydropower may cause harmful environmental or social effects. However, provided that the most advanced technologies and methods, which had been developed with a view to reducing to a minimum extent possible these drawbacks, were applied, hydropower appeared as a viable solution in this respect. In view of the importance of hydropower in supplying renewable energy to the world, the delegation had supported the work of UNSEGED by organizing a symposium on hydropower and the utilization of waterfall energy in an environmentally sensitive world, which was held at Oslo, Norway in October 1991. The delegation suggested that the report of that symposium (A/AC.218/1992/10) also be transmitted to the Preparatory Committee for the Conference, together with the entire report of UNSEGED.

V. PROMOTION OF THE MOBILIZATION OF FINANCIAL RESOURCES REQUIRED IN THE IMPLEMENTATION OF THE NAIROBI PROGRAMME OF ACTION

(Agenda item 4)

61. The Chief of the New and Renewable Sources of Energy Section of the Department of International Economic and Social Affairs introduced the report of the Secretary-General on the mobilization of financial resources and inter-agency coordination (A/AC.218/1991/7). The hoped-for importance of consultative meetings for the mobilization of financial resources had not been realized and the practice had ceased after negligible donor interest. Decreasing interest at the national level in the industrialized countries was reflected in the fact that public spending on new and renewable sources of energy research and development had basically been reduced by 50 per cent over the decade. In the United Nations system, financial commitments were dominated by those going to hydropower, fuelwood and conservation, which included energy efficiency measures. The World Bank, the United Nations Development Programme (UNDP) and the Food and Agriculture Organization of the United Nations (FAO) were the main funding sources. It was concluded in the report that funding at the national and international levels had declined in recent years. In the developing countries, funding had been scaled down in many cases because of competing demands that were perceived as more pressing. It was hoped that the perception that new and renewable sources of energy could alleviate global concerns about the environmental effects of conventional energy use would be reflected in the mobilization of much-needed funding.

62. Many delegations expressed concern about the lack of progress in mobilizing financial resources at the national, regional and international levels. This was due to a lack of political commitment and the agreed upon targets quantifying the objectives of the Nairobi Programme of Action. The lack of financial commitments and adequate institutional support by industrialized countries was viewed as particularly worrying. They supported the recommendations contained in several documents before the Committee concerning increasing international funding in support of the implementation of national action programmes.

63. One delegation noted that, in addition to the mobilization of additional international financial resources, it was also important for countries to mobilize domestic resources. It also stressed the importance of having a long-term view regarding the development and use of new and renewable sources of energy. New efforts should be undertaken to clearly quantify the magnitude of the funding needed also at the project level. New and existing mechanisms should be investigated through which resources could be mobilized. One delegation stated that existing resources should be used in a more reasonable way and concentrate on a few priority areas. Research and development centres should be set up where basic conditions already existed, and planning for the mobilization of financial resources for technical training should be improved.

VI. SUBSTANTIVE THEMES SELECTED FOR DETAILED CONSIDERATION

(Agenda item 5)

64. The Chief of the New and Renewable Sources of Energy Section of the Department of International Economic and Social Affairs introduced the report of the Secretary-General on the contribution of new and renewable sources of energy to decentralized energy systems and to specific multi-purpose medium- to large-scale applications (A/AC.218/1992/2). He stated that progress in the application of most of those resources, either large- or small-scale, had been limited, yet considerable advances had been made in a few countries in mini-hydro power, biogas plants, the use of agricultural residues and in geothermal energy. Much of the progress in the development and use of new and renewable sources of energy had been the result of government intervention rather than incentives to the private sector. Centralized new and renewable sources of energy systems, for example, large-scale hydropower and geothermal energy, had been more successfully applied. Success had also been reported in large-scale solar and wind systems. He expressed the hope that technology activities and cost reduction in those systems could ultimately benefit the developing countries - through adequate access to appropriate technology. However, he stressed that the problem of developing countries in providing decentralized systems to rural areas still remained unresolved. There was a need for a longer-term perspective in the development and utilization of new sources of energy for both decentralized and large-scale applications. Possibilities for multi-purpose usage should be investigated and encouraged. He reiterated that growing environmental concerns might lead to increased development and use of new and renewable sources of energy. That would require increased financial flow from developed countries through bilateral and multilateral assistance programmes and to incentives for private enterprise investments.

65. He also introduced the report of the Secretary-General on the promotion of rapid and effective transfer of technology in new and renewable sources of energy to developing countries (A/AC.218/1992/3). He stated that there was considerable scope for transfer of technology in the field of new and renewable sources of energy. However, while many activities had been carried out, data received by the Secretariat on them were incomplete for an assessment of the general trend and the extent to which there was a decline in the transfer of new and renewable sources of energy technologies. He urged member States to provide the necessary data. He stressed that technology transfer should not be looked at in isolation, but rather as part of an integrated policy framework that included many other developmental issues.

66. The Chief of the New and Renewable Sources of Energy Section also introduced the report of the Secretary-General concerning the activities in the United Nations system regarding the two substantive themes (A/AC.218/1992/4). He stated that a number of the activities had already been mentioned when considering document A/AC.218/1992/6. The largest number of activities relating to the substantive themes concerned solar energy, in particular photovoltaics. Other activities concerned wind, hydropower, biomass, including biogas, charcoal and fuelwood, and geothermal energy. Many entities have been involved, including the Department of Technical Cooperation for Development of the Secretariat, FAO, the United Nations Industrial

Development Organization (UNIDO), the United Nations Children's Fund (UNICEF), UNDP and the World Bank. The nature of involvement varied from country to country and technology to technology. With regard to technology transfer, the entities of the United Nations system had mostly been involved in promotional activities; there were few examples of actual transfer or joint ventures.

67. Many delegations deplored the delay in the distribution of the documents relating to the substantive themes. Owing to the technical nature of the substantive themes, they stressed that documents should have reached them in good time for appropriate comments to be made by experts at their respective capitals. Delegations considered that their comments under other items had already covered the topics dealt with under the substantive themes. One representative described her country's experience with decentralized energy systems and technology transfer. She pointed out the particular interest of her country in the development of demonstration wind farms on the Black Sea and in the Semenic Mountains. She stated that her country was ready to manufacture, under licence, medium-sized and large wind turbines. The same delegation suggested that her country and other countries from Eastern Europe be included in the proposed network of centres of excellence of international scope in the field of new and renewable sources of energy. The need for international and bilateral technical and financial assistance was stressed.

VII. COMMEMORATION OF THE TENTH ANNIVERSARY OF THE ADOPTION OF THE NAIROBI PROGRAMME OF ACTION FOR THE DEVELOPMENT AND UTILIZATION OF NEW AND RENEWABLE SOURCES OF ENERGY

(Agenda item 6)

68. The Chief of the Energy and Resources Branch of the Department of International Economic and Social Affairs introduced the report of the Intergovernmental Group of Experts on New and Renewable Sources of Energy (A/AC.218/1992/9). He indicated that the preparations for the meeting, which took place in August 1991, had involved the mobilization of limited staff resources. Twelve technical reports, as well as a consolidated report, had been prepared by the secretariat. For one report, assistance was provided by the Government of Finland. There was also an evaluation of progress made in the implementation of the Nairobi Programme of Action and proposals for future action to accelerate its implementation during the 1990s. Thirteen high-level experts nominated by Governments participated in the meeting under the chairmanship of Mr. Eduardo Praselj (Venezuela), one of the main architects of the Nairobi Programme of Action.

69. The report consisted of five sections, namely, a review of the objectives and areas for priority action of the Nairobi Programme of Action; an analysis of energy trends during the 1980s and their impact on new and renewable sources of energy; an assessment of progress achieved during the 1980s for each of the energy sources, as well as an overall assessment in relation to total energy; an analysis of all technical, economic, social, institutional and environmental factors bearing on the implementation of the Nairobi Programme of Action; and recommendations for action at the national level and the international level.

70. He stated that in its recommendations, the Group of Experts, inter alia, emphasized that the main thrust of the Nairobi Programme of Action and its recommendations continued to be valid. However, an overall review of its priorities might be required to reflect the changes that had taken place in the past decade in such areas as energy, ecology, finance, economic growth and the state of application of new and renewable sources of energy technologies.

71. At the national level, the Group of Experts had urged the establishment of time-bound commitments on the share of new and renewable sources of energy in the overall national energy picture and through the establishment of targets to increase that share. At the international level, the Group of Experts recommended that the Committee be strengthened by convening a group of experts between each of the sessions of the Committee. The Secretary-General should be requested to organize a group of experts on new and renewable sources of energy at the global or regional level, as appropriate, to examine energy issues and possible priorities for consideration by the Committee. In that context, such a group of experts, at its first meeting, should examine energy issues and, if possible, set targets and make recommendations.

72. The Group of Experts called for the strengthening of United Nations Secretariat arrangements and indicated that one measure could be for Governments to be requested to second technical staff to the Secretariat. Finally, the Group of Experts called for additional assistance to the

developing countries in financing, through multilateral financial institutions such as the World Bank and UNDP, including possibilities through the Global Environmental Facility and support for economic and technical cooperation among developing countries.

73. Delegations commended the work of the Group of Experts on its valuable and comprehensive report. One delegation stated that, although it could not endorse the report in its entirety, it should also be transmitted to the Preparatory Committee for the United Nations Conference on Environment and Development together with the UNSEGED report on an equal basis. One delegation said that the recommendations in the report carried more formal weight than the UNSEGED report, as it had been prepared by intergovernmental experts. Some other delegations also stated that the report should be transmitted to the Preparatory Committee on an equal basis with the UNSEGED report.

VIII. MEDIUM-TERM PLANNING IN THE FIELD OF DEVELOPMENT AND UTILIZATION OF NEW AND RENEWABLE SOURCES OF ENERGY

(Agenda item 7)

74. The Chief of the Energy and Resources Branch of the Department of International Economic and Social Affairs referred to the medium-term plan for the period 1992-1997 (A/45/6/Rev.1), as approved by the General Assembly at its forty-fifth session. He indicated that Programme 20 (Energy) included six subprogrammes, namely: 1. Monitoring and analysis of global energy trends and prospects and their impact on development; 2. Promotion of energy exploration in developing countries; 3. Furthering the development and use of new and renewable sources of energy for implementation by the Department of International Economic and Social Affairs; 4. Energy resource assessment and exploration; 5. Energy planning and management; and 6. Development and transfer of technology for exploiting critical energy resources for implementation by the Department of Technical Cooperation for Development. The secretariat noted that revisions to the medium-term plan might be necessary after the United Nations Conference on Environment and Development, to be held in Brazil in June 1992, and in the light of draft resolution A/46/L.57 on restructuring and revitalization of the United Nations in the economic, social and related fields, which, once adopted by the General Assembly, would lead to the establishment of an expert committee to be entitled "Committee on the Development and Utilization of New and Renewable Sources of Energy and on Energy for Development".

75. The Committee agreed with the secretariat proposal.

IX. PROPOSALS CONSIDERED BY THE COMMITTEE

76. At the 7th meeting, on 10 February, the representative of Pakistan, on behalf of the States Members of the United Nations that are members of the Group of 77, introduced a draft resolution, entitled "Development and utilization of new and renewable sources of energy in the 1990s and beyond" (A/AC.218/1992/L.4). The draft resolution read as follows:

"The Committee on the Development and Utilization of New and Renewable Sources of Energy,

"Recalling General Assembly resolutions 36/193 of 17 December 1981, 37/250 of 21 December 1982, 38/169 of 19 December 1983, 39/173 of 17 December 1984, 41/170 of 5 December 1986, 43/192 of 20 December 1988 and 45/208 of 21 December 1990,

"Reaffirming the validity of the Nairobi Programme of Action for the Development and Utilization of New and Renewable Sources of Energy and emphasizing the need for further development and implementation of new and renewable sources of energy following the objectives of the Programme,

"Recalling General Assembly resolution 44/228 of 22 December 1989 on the United Nations Conference on Environment and Development,

"Recalling also General Assembly resolution 45/199 of 21 December 1990 on the International Development Strategy for the Fourth United Nations Development Decade,

"Stressing the importance of the continued development and application of renewable energy technologies, taking into account, inter alia, the importance of social, environmental and developmental concerns,

"Taking into account the fact that widely distributed and accessible renewable sources of energy could constitute a more significant share of world energy supply,

"Having considered the report of the Secretary-General entitled 'Solar energy: a strategy in support of environment and development', 1/

"Also having considered the report of the Intergovernmental Group of Experts on New and Renewable Sources of Energy 2/ and the pre-feasibility survey entitled 'A proposed network of centres of excellence of international scope on new and renewable sources of energy',

"Reaffirming that the fundamental objective of the Nairobi Programme of Action is to promote concerted action in the context of the energy

---

"1/ A/AC.218/1992/5 and Add.1.

"2/ A/AC.218/1992/9.

transition for the development and utilization of new and renewable sources of energy with a view to helping meet future overall energy requirements, especially those of developing countries, and that the energy transition from an international economy based primarily on hydrocarbons to one based increasingly on new and renewable sources of energy should be orderly and peaceful and should take place in a manner which, consistent with the needs and options of individual countries, is socially equitable economically and technically viable and environmentally sustainable,

"Observing that environmental problems, especially with respect to the depletion of the ozone layer, climate change, urban air pollution, acidification, land degradation, desertification, erosion and deforestation, require strong and immediate action, and that in this regard new and renewable sources of energy could provide a major instrument to address effectively these problems,

"Considering that developing an energy system based increasingly on new and renewable sources of energy will require fundamental structural, economic and institutional changes in both the industrialized and developing countries, and that this can be achieved only with strong political will, active international cooperation, and public and private involvement,

"Considering also that adopting a long-term approach is essential for the development of the infrastructure and the policy and institutional arrangements needed for utilizing new and renewable sources of energy,

"Considering further that implementing such an approach will also require short- and medium-term transitional policies,

"I

"Effective implementation of the Nairobi Programme of Action

"1. Takes note of the report of the Secretary-General entitled 'Solar energy: a strategy in support of environment and development', 1/ the report of the Intergovernmental Group of Experts on New and Renewable Sources of Energy 2/ and the pre-feasibility survey entitled 'A proposed network of centres of excellence of international scope on new and renewable sources of energy';

"2. Invites Member States to consider the development of new and renewable sources of energy in the context of their overall national development plans and priorities, and coordinated as an integral part of energy sector programmes;

"3. Invites Member States to consider the following measures to this end:

"(a) The adoption and implementation of integrated national action programmes on the development and utilization of new and renewable

sources of energy within the framework of strategies and policies for the transition to energy systems compatible with sustainable development;

"(b) The establishment of targets for the contribution of the different new and renewable sources of energy to their energy supply, commensurate with the needs and options of individual countries;

"(c) The establishment and strengthening of, as appropriate, national government institutions, at a suitably high level, responsible for the development and utilization of new and renewable sources of energy; where deemed necessary, cooperative arrangements at the subregional and regional levels should be envisaged;

"(d) Promotion of the utilization of new and renewable sources of energy through education, training and information programmes; energy/environment planning and policy coordination; and research, development and demonstration, with a view to facilitating the implementation of national plans, including policies and programmes for achieving the targets established by countries themselves;

"(e) The adopton of energy policies that provide reasonable and adequate incentives, measures and regulations for the development and utilization of new and renewable sources of energy; environmental and social costs could be incorporated in national energy planning and project appraisals;

"(f) Encouragement of the funding of research, development and demonstration in the area of new and renewable sources of energy, in particular through public energy investments devoted to promoting research, development, demonstration and training related to new and renewable sources of energy, commensurate with the potential of countries to meet national energy needs and with their international responsibilities;

"(g) The establishment and implementation of procedures for recording statistical data on new and renewable energy applications in their respective countries;

"(h) The provision of information on their national programmes for promoting new and renewable energy sources in order to facilitate international cooperation;

"4. Requests the Secretary-General and the United Nations system to implement the following recommendations:

"(a) Promote rapid implementation of systems based on new and renewable sources of energy, especially in developed countries, in order to reduce possible environmentally harmful emissions in a manner consistent with their magnitude;

"(b) Promote all efforts in the energy sector so that new and renewable sources of energy and technologies for their utilization, together with energy-efficiency improvements, are given adequate priority as instruments for sustainable development;

"(c) Ensure that the various entities within the United Nations system continue to carry out action-oriented programmes and projects for the effective implementation of the Nairobi Programme of Action for the Development and Utilization of New and Renewable Sources of Energy, in accordance with the areas for priority action set up therein; with a view to ensuring that a continuous effort is made by the system towards the development and utilization of new and renewable sources of energy, new programmes and projects should be prepared upon completion of current ones, or suitable adjustment should be introduced to current activities in the light of the experience gained in their implementation; technical cooperation among developing countries as a modality in programme formulation and implementation should be significantly expanded;

"(d) Promote increased funding, inter alia, from new and additional financial resources, in support of the implementation of national action programmes on new and renewable energy sources, in particular in developing countries;

"(e) Promote the rapid and effective transfer of technologies to harness new and renewable sources of energy to all countries and, in particular, to developing countries on favourable and concessional terms; in that regard, action should be taken to adapt currently available technologies to local conditions, to support the build-up of the endogenous expertise and infrastructure needed to enable the implementation of new and renewable energy programmes, and to promote local production of technologies in order to enhance national self-reliance;

"(f) Assist countries in the collection of data on new and renewable sources of energy in a standardized form, so that it can be useful at the international level;

"(g) Prepare and disseminate studies on new technological developments, techniques and strategies for identifying, locating and evaluating new and renewable energy sources;

"(h) Promote measures for assisting developing countries in the development of credit and marketing facilities designed to facilitate the development and utilization of promising technologies to harness new and renewable sources of energy;

"(i) Promote the allocation of a significant and increasing share of aid funds devoted to the energy sector from multilateral and international agencies to viable new and renewable energy projects;

"(j) Promote the mobilization of additional and adequate financial resources for the implementation of the Nairobi Programme of Action through existing or new financial institutions and mechanisms of the United Nations system; in that regard, the Governing Council of the United Nations Development Programme should be requested to consider revitalizing the Energy Account and converting it into an energy fund, as originally conceived;

"(k) Coordinate activities carried out within and outside the United Nations system, including intergovernmental organizations, non-governmental organizations and financial institutions, with a view to promoting effectively the utilization of new and renewable energy sources through efficient utilization of resources and avoidance of unnecessary overlapping and duplication;

"5. Recommends that institutional arrangements within the United Nations system be strengthened with a view to ensuring the effective implementation of the Nairobi Programme of Action; that United Nations Secretariat arrangements be strengthened consistent with the magnitude of the supporting tasks to be carried out concerning the scientific, technical, monitoring and coordination aspects of the development and utilization of new and renewable sources of energy; that, when appropriate, Governments be requested to second technical staff; and that final institutional arrangements be implemented in the light of the outcome and recommendations of the United Nations Conference on Environment and Development;

"6. Requests the Secretary-General to undertake the necessary consultations with a view to enlisting enhanced financial support from donor countries and multilateral financial institutions for the development and utilization of new and renewable sources of energy;

"7. Invites interested Member States, the United Nations system and the international community to provide the necessary financial support to implement the network of centres of excellence, as recommended by the Castel Gandolfo Colloquium of High-level Experts on New and Renewable Sources of Energy, 3/ such a network to be linked to regional new and renewable sources of energy centres and networks;

"8. Requests the Secretary-General to provide appropriate assistance, through the United Nations system, for the measurement and evaluation of new and renewable energy resources in developing countries;

"9. Also requests the Secretary-General to prepare an analytical, comparative and comprehensive study of experiences gained worldwide in implementing new and renewable energy strategies, as well as proposals for effective policies;

"10. Requests the Secretary-General and the United Nations system to prepare, for submission to the General Assembly at its forty-eighth session, a comprehensive report on the progress made in the implementation of the present resolution;

"3/ A/AC.218/1990/2, sect. II.C.

"II

"Contribution of the Committee on the Development and Utilization of New and Renewable Sources of Energy to the United Nations Conference on Environment and Development through the fourth session of the Preparatory Committee for the Conference

"Requests the Secretary-General to transmit to the Preparatory Committee for the United Nations Conference on Environment and Development, at its fourth session, for consideration under Agenda 21, the report of the Secretary-General entitled 'Solar energy: a strategy in support of environment and development', 1/ the report of the Intergovernmental Group of Experts on New and Renewable Sources of Energy 2/ and the pre-feasibility survey entitled 'A proposed network of centres of excellence of international scope on new and renewable sources of energy'."

77. At the same meeting, statements were made by the representatives of Ecuador, Portugal (on behalf of the European Economic Community), the United States of America, China, Pakistan (on behalf of the States Members of the United Nations that are members of the Group of 77) and the Russian Federation.

78. At its 8th meeting, on 14 February, after a statement made by the Chairman, the Committee agreed to take no action on the draft resolution.

79. At the same meeting, the Chairman read out a draft decision which had been agreed upon during informal consultations. After a statement had been made by the representative of Germany, the Committee adopted the draft decision (see annex, draft decision 1 (VI)).

80. After the adoption of the draft decision, statements were made by the representatives of Pakistan (on behalf of the States Members of the United Nations that are members of the Group of 77), Portugal (on behalf of the European Economic Community) and Ecuador.

81. The statements made by the representatives of Pakistan (on behalf of the States Members of the United Nations that are members of the Group of 77) and Ecuador are reproduced below, as formally requested by the representatives of those delegations.

Statement of the representative of Pakistan:

"Mr. Chairman,

"On behalf of the Group of 77, I would like to thank you for your untiring efforts in trying to achieve consensus on the G-77 draft resolution contained in document A/AC.218/1992/L.4 entitled 'Development and utilization of new and renewable sources of energy in the 1990s and beyond'.

"Through the submission of the draft resolution, the G-77 had expected that it would reflect the work of the sixth session of the Committee and also make concrete recommendations to Governments, the

Secretary-General of the United Nations, and transmit relevant documents to the fourth session of the Preparatory Committee for UNCED, for its consideration.

"This being the last session of the Committee, we had hoped that its efforts, since the coming into force of the Nairobi Programme of Action, required to be given formal recognition in the form of a resolution. We negotiated the draft for the past week and had our original resolution considerably watered down through amendments in our efforts to reach consensus. Unfortunately, this could not be accomplished despite the best efforts of the Group of 77 in showing accommodation and flexibility.

"As we had reached an impasse, as stated by you before adopting the decision, we were constrained to support the draft decision of the Chairman, which was forwarded to the fourth session of the Preparatory Committee for UNCED.

"The relationship between our work here and the forthcoming Preparatory Committee are inseparable. Energy-related issues are integral to the Preparatory Committee of UNCED and in particular to the negotiations of the Intergovernmental Negotiating Committee (INC) on a Framework Convention on Climate Change. Increasing dependence on NRSE will have to be one of the cornerstones of our discussions in the context of global warming. It is ironic that delegations which have made a very strong case for firm commitments in the context of greenhouse gases have given a clear indication of the difference between their words and deeds. This does not auger well for the future.

"In conclusion, I would like to mention, on behalf of the Group of 77, that we are indeed very disappointed that our flexibility and readiness to achieve consensus was not matched by some of our negotiating partners. I would, however, like to end on a positive note and hope that in future a more conciliatory attitude is adopted and the genuine concerns of all groups are taken into consideration and efforts at adoption of such resolutions are not frustrated.

"I will request you that the text of my statement may please be reflected in the report of the Committee."

Statement of the representative of Ecuador:

"Mr. Chairman,

"The delegation of Ecuador fully endorses the words and ideas expressed by the Chairman of the Group of 77 and, in addition to that, we would like specifically to say, and we would like what we say to be reflected in its entirety, namely, that in a negotiating forum, the participants, whoever they may be, seek to get to ideas and recommendations which reflect the interests, the concerns and the general and commonly held views and decisions on subjects which are of the competence of the whole group. Energy topics are at the very basis of individual as well as collective development. The specific issues which have to do with the use and the utilization in general of new and renewable sources of energy - a major factor in the development effort -

social and economic development and growth of developing countries, is the topic which has brought us all together here in these halls over the last two weeks.

"For all of us developing countries, and for Ecuador in particular, this item is of key importance. It is an item which is at the very heart of the enormous task lying ahead for our countries as they seek to combat extreme poverty - rural and urban poverty. The desire that our countries have to fight against the mass exodus of our farmers who cannot benefit from proper development there. The energy that can come from the new and renewable sources of energy within the United Nations structure could have constituted a most beneficial contribution to deal, at least partially for the time being, with the problems of these sectors of our society. It is not that we cannot, we are trying to make all the efforts we can make. But circumstances are such that we really also need to have the support and assistance and cooperation which the United Nations gives its Member States. That is why my delegation profoundly regrets the fact that rigidity was greater than the desire to achieve the social, economic and environmental goals which are already contained in the Nairobi Programme of Action and that this very negative behaviour has scuffled negotiations which began with such great promise and this is something that will of necessity be reflected in the global developments which were so positive in recent years. The message we have just gotten shows the opposite is happening now. Thank you."

X. CONSIDERATION OF THE DRAFT PROVISIONAL AGENDA AND DOCUMENTATION FOR THE SEVENTH SESSION OF THE COMMITTEE

82. At its 8th meeting, on 14 February 1992, the Committee approved the draft provisional agenda and documentation for its seventh session (see annex, decision 2 (VI)).

XI. ADOPTION OF THE REPORT OF THE COMMITTEE ON ITS SIXTH SESSION

83. At its 8th meeting, on 14 February 1992, the Committee adopted the draft report on its sixth session (A/AC.218/1992/L.3 and Add.1 and 2), as orally amended during the discussion.

Notes

1/ Report of the United Nations Conference on New and Renewable Sources of Energy, Nairobi, 10-21 August 1981 (United Nations publication, Sales No. E.81.I.24), chap. I, sect. A.

ANNEX

Decisions adopted by the Committee on the Development and Utilization of New and Renewable Sources of Energy at its sixth session

1 (VI). Contribution of the Committee on the Development and Utilization of New and Renewable Sources of Energy to the United Nations Conference on Environment and Development through the fourth session of the Preparatory Committee for the Conference

The Committee on the Development and Utilization of New and Renewable Sources of Energy:

Requests the Secretary-General, in accordance with the relevant provisions of General Assembly resolution 45/208 of 21 December 1990, to transmit to the Preparatory Committee of the United Nations Conference on Environment and Development, at its fourth session, for consideration under agenda 21, the report of the Secretary-General entitled "Solar energy: a strategy in support of environment and development", a/

Requests further the Secretary-General to transmit to the Preparatory Committee for the United Nations Conference on Environment and Development at its fourth session, for information and appropriate consideration, the following reports:

(a) "Intergovernmental Group of Experts on New and Renewable Sources of Energy"; b/

(b) The pre-feasibility survey entitled "A proposed network of centres of excellence of international scope on new and renewable sources of energy", carried out by the Office of the Director-General for Development and International Economic Cooperation, the United Nations University and the Italian Agency for New Technology, Energy and Environment, dated December 1991; and

(c) "Hydropower - Utilization of Waterfall Energy in an Environmentally Sensitive World". c/

---

a/ A/AC.218/1992/5 and Add.1.

b/ A/AC.218/1992/9.

c/ A/AC.218/1992/10.

2 (VI). Provisional agenda and documentation for the seventh session of the Committee on the Development and Utilization of New and Renewable Sources of Energy

At its 8th meeting, on 14 February 1992, the Committee on the Development and Utilization of New and Renewable Sources of Energy approved the provisional agenda and documentation for its seventh session, as set out below:

1. Election of officers.

2. Adoption of the agenda and organization of work.

3. Implementation of the Nairobi Programme of Action for the Development and Utilization of New and Renewable Sources of Energy:

   (a) Monitoring the implementation of the Nairobi Programme of Action and the activities of the organs, organizations and bodies of the United Nations system in the field of new and renewable sources of energy;

   (b) Recommendation of policy guidelines for different organs, organizations and bodies within the United Nations system with regard to new and renewable sources of energy on the basis of the Nairobi Programme of Action;

   (c) Formulation and recommendations of action-oriented plans and programmes for carrying out the Nairobi Programme of Action in accordance with priorities identified therein;

   (d) Inter-agency coordination for the implementation of the Nairobi Programme of Action;

   (e) Promotion of the mobilization of financial resources required in the implementation of the Nairobi Programme of Action;

      (i) Existing channels for funding new and renewable sources of energy;

      (ii) Progress achieved in mobilizing financial resources through consultative meetings.

4. Medium-term planning in the field of development and utilization of new and renewable sources of energy.

5. Provisional agenda for the eighth session of the Committee.

6. Adoption of the report of the Committee on its seventh session.

Documentation

1. Report of the Secretary-General on new technological developments, techniques and strategies for identifying, locating and evaluating new and renewable sources of energy.

2. Report of the Secretary-General on experiences gained worldwide in implementing new and renewable sources of energy, as well as proposals for effective policies.

3. Report of the Secretary-General on the progress made in the implementation of General Assembly resolution ____.

كيفية الحصول على منشورات الأمم المتحدة

يمكن الحصول على منشورات الأمم المتحدة من المكتبات ودور التوزيع في جميع أنحاء العالم . استعلم عنها من المكتبة التي تتعامل معها أو اكتب إلى : الأمم المتحدة ، قسم البيع في نيويورك أو في جنيف .

如何购取联合国出版物

联合国出版物在全世界各地的书店和经售处均有发售。请向书店询问或写信到纽约或日内瓦的联合国销售组。

HOW TO OBTAIN UNITED NATIONS PUBLICATIONS

United Nations publications may be obtained from bookstores and distributors throughout the world. Consult your bookstore or write to: United Nations, Sales Section, New York or Geneva.

COMMENT SE PROCURER LES PUBLICATIONS DES NATIONS UNIES

Les publications des Nations Unies sont en vente dans les librairies et les agences dépositaires du monde entier. Informez-vous auprès de votre libraire ou adressez-vous à : Nations Unies, Section des ventes, New York ou Genève.

КАК ПОЛУЧИТЬ ИЗДАНИЯ ОРГАНИЗАЦИИ ОБЪЕДИНЕННЫХ НАЦИЙ

Издания Организации Объединенных Наций можно купить в книжных магазинах и агентствах во всех районах мира. Наводите справки об изданиях в вашем книжном магазине или пишите по адресу: Организация Объединенных Наций, Секция по продаже изданий, Нью-Йорк или Женева.

COMO CONSEGUIR PUBLICACIONES DE LAS NACIONES UNIDAS

Las publicaciones de las Naciones Unidas están en venta en librerías y casas distribuidoras en todas partes del mundo. Consulte a su librero o diríjase a: Naciones Unidas, Sección de Ventas, Nueva York o Ginebra.

Litho in United Nations, New York ISSN 0255-1330 11066—March 1992—3,420